

McGraw-Hill
DICTIONARY OF
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TERMS

Fourth Edition

On the cover: Pattern produced from white light by a computer-generated diffraction plate containing 529 square apertures arranged in a 23×23 array. (R. B. Hoover, Marshall Space Flight Center)

On the title pages: Aerial photograph of the Sinai Peninsula made by Gemini spacecraft. (NASA)

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MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS.

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vertical turbine pump See deep-well pump. { 'vɜr-də-kəl 'tʌr-bən 'pʌmp }

vertical turret lathe [DES ENG] Similar in principle to the horizontal turret lathe but capable of handling heavier, bulkier workpieces; it is constructed with a rotary, horizontal worktable whose diameter (30-74 inches, or 76-188 centimeters) normally designates the capacity of the machine; a crossrail mounted above the worktable carries a turret, which indexes in a vertical plane with tools that may be fed either across or downward. { 'vɜr-də-kəl 'tʌr-ət 'læθ }

vertical visibility [METEOROL] According to United States weather observing practice, the distance that an observer can see vertically into a surface-based obscuring phenomenon, such as fog, rain, or snow. { 'vɜr-də-kəl vɪsə'bɪl-əd-ē }

vertical vorticity [FL MECH] The vertical component of the vorticity vector. { 'vɜr-də-kəl vɔr'tɪs-əd-ē }

verticillate [BOT] Whorled, in an arrangement resembling the spokes of a wheel. { 'vɜr-də-kəl 'lɪt }

vertigo [ANAT] The sensation that the outer world is revolving about the patient (objective vertigo) or that the patient is moving in space (subjective vertigo). { 'vɜr-də-gō }

Vertisol [GEOL] A soil order formed in regoliths high in clay; subject to marked shrinking and swelling with changes in water content; low in organic content and high in bases. { 'vɜr-də-sə-l }

very close pack ice [OCEANOGR] Sea ice so concentrated that there is little if any open water. { 'vɜr-ē 'klɒs 'pæk 'ɪs }

very high frequency [COMMUN] The band of frequencies from 30 to 300 megahertz in the radio spectrum, corresponding to wavelengths of 1 to 10 meters. Abbreviated VHF. { 'vɜr-ē 'hi 'frɪk-wəns-ē }

very high-frequency omnidirectional radio range [NAV] A radio navigation aid operating at very high frequency and supplying bearing information for the entire 360° of azimuth. Abbreviated VOR. { 'vɜr-ē 'hi 'frɪk-wəns-ē 'ɒm-nɪ-dɪ-rek-shən-əl 'ræd-ē-ō 'ræn-ŋ }

very high-frequency oscillator [ELECTR] An oscillator whose frequency lies in the range from a few to several hundred megahertz; it uses distributed, rather than lumped, impedances, such as parallel wire transmission lines or coaxial cables. { 'vɜr-ē 'hi 'frɪk-wəns-ē 'ɔs-ə-lə-tər }

very high-frequency tuner [ELECTR] A tuner in a television receiver for reception of stations transmitting in the very-high-frequency band; it generally has 12 discrete positions corresponding to channels 2-13. { 'vɜr-ē 'hi 'frɪk-wəns-ē 'tʌn-ər }

very large crude carrier [NAV ARCHT] A liquid-cargo vessel in the 100,000- to 250,000-ton range. Abbreviated VLCC. { 'vɜr-ē 'lɑr-ŋ 'krʌd 'kɑr-ē-ər }

very large-scale integrated circuit [ELECTR] A complex integrated circuit that contains at least 20,000 logic gates or 64,000 bits of memory. Abbreviated VLSI circuit. { 'vɜr-ē 'lɑr-ŋ 'skāl 'ɪn-tɛ-grəd-əd 'sɔr-ki-t }

very long-baseline interferometry [ELECTR] A method of improving angular resolution in the observation of radio sources; these are simultaneously observed by two radio telescopes which are very far apart, and the signals are recorded on magnetic tapes which are combined electronically or on a computer. Abbreviated VLBI. { 'vɜr-ē 'lɒŋ 'bæ-sɪ-lɪn 'ɪn-tər-fə-rəm-ē-trɪ-ē }

very long-range material requirements [ORD] Items required by operational and organizational concepts established for a period 10 years hence and beyond. { 'vɜr-ē 'lɒŋ 'ræn-ŋ mæ'tɪr-əl 'rɪ-kʌɪr-mənts }

very long-range radar [ELECTR] Equipment whose maximum range on a reflecting target of 10.76 square feet (1 square meter) normal to the signal path exceeds 800 miles (1300 kilometers), provided line of sight exists between the target and the radar. { 'vɜr-ē 'lɒŋ 'ræn-ŋ 'ræd-ər }

very low frequency [COMMUN] The band of frequencies from 3 to 30 kilohertz in the radio spectrum, corresponding to wavelengths of 10 to 100 kilometers. Abbreviated VLF. { 'vɜr-ē 'lɒ 'frɪk-wəns-ē }

very open pack ice [OCEANOGR] Sea ice whose concentration ranges between one-tenth and three-tenths of the sea surface. { 'vɜr-ē 'ɒ-pən 'pæk 'ɪs }

very short-range radar [ELECTR] Equipment whose range on a reflecting target of 10.76 square feet (1 square meter) normal to the signal path is less than 50 miles (80 kilometers).

provided line of sight exists between the target and the radar. { 'vɜr-ē 'hɔrt 'ræn-ŋ 'ræd-ər }

vesicant [PHARM] An agent that causes blistering. { 'ves-ə-kənt }

vesication [MED] 1. A blister. 2. Formation of a blister. { 'ves-ə-kə-shən }

vesicle [BOT] A small, thin-walled bladderlike cavity, usually filled with fluid. [GEOL] A cavity in lava formed by entrapment of a gas bubble during solidification. Also known as air sac; bladder; saccus; vacuole; w.ing. { 'ves-ə-kəl }

vesicular [SCI TECH] Characterized by abundant vesicles. { 'vɜs-ə-kyl-ər }

vesicular film [GRAPHICS] A film that is sensitive to ultraviolet light and is developed by heat, without chemicals. { 'vɜs-ə-kyl-ər 'fɪlm }

vesicular structure [PETR] A structure that is common in many volcanic rocks and which forms when magma is brought to or near the earth's surface: may form a structure with small cavities, or produce a pumiceous structure. { 'vɜs-ə-kyl-ər 'strʌk-ʃər }

Vespertilionidae [VIRT ZOO] The common bats, a large cosmopolitan family of the Chiroptera characterized by a long tail, extending to the edge of the uropatagium; almost all members are insect-eating. { 'vesp-ər-tɪ-l-ən-ə-d-ē }

vespertine [VIRT ZOO] Active in the evening. { 'vesp-ər-tɪn }

Vespidae [VIRT ZOO] A widely distributed family of Hymenoptera in the superfamily Vespoidea including hornets, yellow jackets, and potter wasps. { 'vesp-ə-d-ē }

Vespoidea [VIRT ZOO] A superfamily of wasps in the suborder Apocrita. { 'vesp-ə-ɪ-d-ē-ə }

vessel [BOT] A water-conducting tube or duct in the xylem. [ENG] A container or structural envelope in which materials are processed, treated, or stored; for example, pressure vessels, reactor vessels, agitator vessels, and storage vessels. [NAV ARCHT] Any craft that can carry people or cargo over the surface of the water. { 'ves-səl }

vessel segment [BOT] A single cell or unit of a plant vessel. { 'ves-səl 'seg-mənt }

vessel traffic service [NAV] A program that provides marine traffic management of an advisory nature, and occasional emergency control, to reduce collisions and strandings in heavily trafficked ports. { 'ves-səl 'traf-ɪk 'sɜr-vɪs }

Vesta [ASTRON] The third-largest asteroid with a diameter of about 300 miles (500 kilometers), mean distance from the sun of 2.362 astronomical units, and a unique surface composition resembling basaltic, achondritic meteorites. { 'vest-ə }

vestibular apparatus [ANAT] The anatomical structures concerned with the vestibular portion of the eighth cranial nerve; includes the saccule, utricle, semicircular canals, vestibular nerve, and vestibular nuclei of the ear. { 'vɜs-tɪb-yul-ər 'əp-ə-rə-tʌs }

vestibular membrane of Reissner See Reissner's membrane. { 'vɜs-tɪb-yul-ər 'mem-brən 'vɔn 'rɪ-s-ner }

vestibular nerve [ANAT] A somatic sensory branch of the auditory nerve, which is distributed about the annular of the semicircular canals, macula sacculi, and utricula. { 'vɜs-tɪb-yul-ər 'nɜv }

vestibular reflexes [PHYSIO] The responses of the vestibular apparatus to strong stimulation; responses include pallor, nausea, vomiting, and postural changes. { 'vɜs-tɪb-yul-ər 'refleks-əz }

vestibule [ANAT] 1. The central cavity of the bony labyrinth of the ear. 2. The parts of the membranous labyrinth within the cavity of the bony labyrinth. 3. The space between the labia minora. 4. See buccal cavity. [BUILD] A hall or chamber between the outer door and the interior, or rooms, of a building. { 'vest-ə-byul }

vestibule school [IND ENG] A school organized by an industrial concern to train new employees in specific tasks or prepare employees for promotion. { 'vest-ə-byul 'skul }

vestibule training [IND ENG] A procedure used in operator training in which the training location is separate from the main productive areas of the plant; includes student carrels, lecture rooms, and in many instances the same type of equipment that the trainee will use in the work station. { 'vest-ə-byul 'traɪn-ɪŋ }

vestibulocerebellar [ANAT] Pertaining to the vestibular fibers and the cerebellum. { 'vɜs-tɪb-yul-ər 'sɛr-ə-b-əl-ər }

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